

The Honourable Ginette Petitpas Taylor, M.P.
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September 21, 2017

Dear Minister Petitpas Taylor,

On behalf of the volunteers of Canadians for Safe Technology (C4ST), I would like to extend our congratulations on your appointment as Minister of Health.

C4ST is a national, entirely volunteer-based, not-for-profit coalition of citizens, including educators, experts, and parents whose mission is to inform Canadians and policymakers about the health risks of exposure to radiation from common household wireless technology, and to work with all levels of government to create healthier communities for children and families.

C4ST was established in 2012 to pursue this mission when residents were concerned about health effects of a cell tower in three different communities. C4ST expanded to support over fifty active cell tower situations across Canada. Since then we have been taking actions ranging from grassroots awareness building to testifying in 2015 to the Parliamentary Standing Committee on Health (HESA) studying Safety Code 6.

This amazing technology does not come without risks to health. We believe it is possible for Canadians to obtain the significant benefits technology can provide, in a safer manner.

Issues of immediate and deep concern relating to the health of all Canadian residents are:

1. Urgent need to revise Health Canada's Safety Code 6.

- Established in 1979 Safety Code 6 is still based solely on heating for the frequencies commonly used in wireless radiation devices. Many recent peer-reviewed studies indicate harm, such as DNA breakage and sperm damage, at non-thermal levels well below Safety Code 6. We recently submitted a summary of 200 recent studies to Health Canada.¹
- The newest bandwidths to be licensed to support rollout of 5G have not been pre-market tested for safety to humans. In response to an Innovation, Science and Economic Development (ISED) public consultation, C4ST has requested a moratorium on the rollout of 5G technologies until the potential health effects are understood.²

2. Improper use of cell phones and other wireless devices. Manufacturer's warnings come with each device instructing distances that devices should be held from the body to stay below Safety Code 6 levels.³ Many Canadians are unaware of these warnings and use their devices clearly in breach of the warnings.

3. Wi-Fi and intensive use of wireless devices in schools and the health of students and teachers, as well as all Canadians as Wi-Fi usage is expanded in homes and the workplace.

4. Electrosensitivity. There are only two clinics specializing in this in Canada and their waitlist is several months long. More physicians need training in this area.

Further details on these issues are provided in the appendix to this letter.

¹ http://c4st.org/wp-content/uploads/2017/04/original-references_of_over_200_scientific_studies_showing_potential_harm_at_levels_below_safety_code_6.pdf

² <http://c4st.org/c4st-submission-to-the-industry-science-and-economic-development-ised-public-consultation-on-5g/>

³ <http://showthefineprint.org/>

We would like to meet with you to discuss any, or all, of these and other issues as you wish. We will bring our accumulated knowledge of this issue - from presenting the most recent substantial new scientific evidence (including international experts' opinions) that Safety Code 6 is dangerously out of date, to relating the experiences of hundreds of Canadians made ill by wireless radiation. I also will bring the perspective of over 40 years experience in the technology industry. We have received consistent feedback from the over 50 MP's we have met who support our philosophy to encourage the use of technology and all its benefits, but to ensure Canadians know how to use and deploy it safely for themselves and their families.

My industry predicts that there will be 50 billion wireless devices worldwide by 2019 which equates to over 20 devices per Canadian home. If history repeats, 2019 is about the time of the next update for Safety Code 6. Safety Code 6 has not had any major modifications in over 40 years. Currently, China, Italy, Russia and Switzerland have better wireless radiation safety standards than Canada. Health Canada has fallen behind countries such as France⁴, Taiwan⁵ and Belgium⁶ in protecting its children from the unsafe use of wireless devices.

Minister, with my background as former President of Microsoft Canada, and a longtime advocate of child internet safety, I have led a group of experts, doctors and medical researchers attempting to bring Health Canada officials into the 21st Century of technological safety, especially for children. However, despite our considerable and respectful effort to engage on the issue, I am discouraged to report that the expert scientific input has been consistently dismissed or ignored, without reasoned explanations. Instead we get form letters with many links and little information on the actual evidence that Health Canada relies on to dismiss the hundreds, if not thousands, of peer-reviewed, published studies showing harm at non-thermal levels. The recent response from Health Canada dated August 18, 2017 to our petition (number 398) submitted to the Attorney General is another example of Health Canada's refusal to provide better protection for Canadians.

One of the key commitments Prime Minister Trudeau has made to Canadians is for evidence-based decision making. This commitment was re-enforced by Minister Philpott in her remarks at an Oakville fundraiser on August 30th, 2017 in reference to the upcoming cannabis legislation.

Based on the evidence, we believe there is an excellent opportunity for Health Canada to help Canadians use wireless technology properly and minimize the potential harm from the unsafe use of wireless devices such as cell phones, tablets and baby monitors. We would appreciate thirty minutes of your time to present this opportunity to you and to explore options to move forward in a proactive manner on this emerging potentially enormous public health issue.

Again, our most sincere congratulations on your appointment as Minister and we thank you for your time. We will be calling your office in the near future to follow-up on our request for a meeting. I look forward to meeting with you.

Sincerely,



Frank Clegg
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cc: Mr. John Oliver, MP Oakville, John.Oliver@parl.gc.ca

Appendix: ISSUES OF IMMEDIATE CONCERN RELATING TO RADIOFREQUENCY/MICROWAVE RADIATION EXPOSURE AND HEALTH CONSEQUENCES

⁴ <http://www.complianceandrisk.com/france-publishes-law-on-electromagnetic-waves/>

⁵ <http://www.dailymail.co.uk/news/article-2929530/Does-toddler-play-iPad-Taiwan-makes-ILLEGAL-parents-let-children-two-use-electronic-gadgets-18s-limit-use-reasonable-lengths.html>

⁶ https://www.expat.com/be/news/Mobile-phones-to-be-banned-for-children_371626.html

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BACKGROUND INFORMATION ON CANADIANS FOR SAFE TECHNOLOGY (C4ST)

Briefs and Submissions: C4ST has directly made, or helped organize, submissions to Health Canada raising concerns about Health Canada's Safety Code 6.

- Formal submissions in October 2013 by 23 worldwide experts and citizens to the Royal Society of Canada expert panel contracted by Health Canada to respond to five questions in its review of the draft Safety Code 6 (2015)
- A report⁷ documenting 140 studies showing harm at levels below SC6 not reviewed by the Royal Society expert panel, by Health Canada, nor by any of the authorities to which these bodies referred to in 2014.
- A report⁸ with references and extracts of over 60 scientific studies published in 2015 and up to April 2016 reporting potential harm at or below Safety Code 6 (2015)
- C4ST recorded and summarized input from 200 Canadian attendees at a conference regarding their concerns about Safety Code 6.
- Multiple letters of concern to Health Canada, Minister(s) of Health and the Royal Society about the lack of independence and fair representation of the Royal Society panel contracted by Health Canada to review the draft Safety Code 6 (2015)⁹
- Meetings with three Director Generals of Health Canada responsible for the Safety Code 6 file: Ms. Pieterston, Mr. Adams and Mr. Singer.
- Meetings with two Health Canada policy advisors: Graham Howell, PhD, Jesse Kancir, MD.

⁷ https://www.scribd.com/document/339243061/Friesen-C4ST-Amended-Input-HC-Safety-Code-6-140-Omitted-Studies-224p#from_embed

⁸ https://www.scribd.com/document/339243060/References-and-Extracts-of-Over-60-Scientific-Studies-Published-in-2015-and-Up-to-April-2016-Reporting-Potential-Harm-at-Levels-at-or-Below-Safety-Cod#from_embed

⁹ <http://c4st.org/page/4/?s=rsc>

Public education and awareness raising about the potential harm from wireless devices and how to use these devices more safely. C4ST has assisted, funded or supported the following:

- A campaign to raise awareness among candidates in the 2015 Federal election. Of the 488 candidates who signed up as CandidatesWhoCare, 35 were elected as Members of Parliament¹⁰
- One-on-one meetings with over 50 MP's with a focus on HESA, INDU and ENVI committee members
- Receptions and luncheons attended by an additional 70 MP's
- Several presentations as delegates to the Toronto Board of Health that we believe influenced the decision to uphold Toronto's Prudent Avoidance policy regarding cell towers¹¹
- Presentations to council meetings in several cities/towns: Guelph, Milton, Mississauga, Oakville, Edmonton and Campbell River (B.C.).
- The 2012 Nanos survey: 68% of Canadians aware and 60% concerned about the effects of wireless radiation; survey updated in July, 2015 with similar results
- Providing guidance, support and technical information in over 50 active cell tower situations
- Presentations to over ten school boards regarding the safe use of Wi-Fi in schools
- Over 75 C4ST Riding Representatives across Canada with responsibility to engage and update their local Member of Parliament
- Awareness campaign in which 109 Ontario school board trustee candidates signed up, 31 were elected as trustees
- Symposium for MD's and other health care professionals hosted by Women's College Hospital.
- Former Oakville MP Terence Young's Private Member's Bill for warning labels on all wireless devices
- Youth-Technology nights co-hosted with local youth organizations
- Interview of CEO, Frank Clegg, on CBC's Marketplace TV program "The Secret Inside Your Phone"
- Provided list of 200 studies showing harm of radiofrequency radiation at low, non-thermal levels below Safety Code 6 that is shown on this program¹²

ISSUES

1. URGENT NEED TO BRING SAFETY CODE 6 GUIDELINES INTO THE 21ST CENTURY BASED ON NON-THERMAL (BELOW HEATING) EFFECTS

As you are likely aware, Safety Code 6 is intended to establish safety limits for human exposure to radiofrequency (RF) electromagnetic energy in the frequency range from 3 kHz to 300 GHz. This includes the human safety levels for exposure to microwave radiation from cell phones, smart meters and Wi-Fi.

The World Health Organization's, International Agency on Research on Cancer (IARC) determined that exposure to wireless radiation is a Class 2B *possible* carcinogen (May 2011).¹³ This includes cell phone radiation and Wi-Fi. Subsequently, Health Canada did post some precautions on its website, but not conspicuously.

The WHO-IARC classification was based largely on human epidemiological studies. Since then several other studies add to the weight of evidence that the classification should be upgraded to a *probable* or *known* carcinogen. Of special note, the National Toxicology Program of the US National Institute of Environmental Health Sciences (NIEHS) found in animal studies, at exposure levels below Safety Code 6, the same type of brain cancer, glioblastoma, as found in the human epidemiological studies

¹⁰ <http://c4st.org/mpswhocare/>

¹¹ <http://c4st.org/?s=toronto>

¹² <http://c4st.org/wp-content/uploads/2017/04/original-references-of-over-200-scientific-studies-showing-potential-harm-at-levels-below-safety-code-6.pdf>

¹³ http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208_E.pdf

1.1 Public consultations relating to revision of Safety Code 6

In 2013, Health Canada began a process to update Canada's Safety Code 6 guidelines. During that process, submissions were made to Health Canada raising concerns about Safety Code 6's lack of protection for Canadians. These submissions include:

- More than forty (40) Canadian physicians called for Health Canada to *“develop and support strategies to raise awareness about microwave radiation impacts and to minimize prolonged exposure to microwave radiation in schools and other places where children are regularly exposed.”*¹⁴
- More than fifty (50) international scientists, experts in the field of wireless radiation, called for Health Canada *“to end its reliance on outdated “thermal measures of harm” which only evaluate temperature changes in tissue”* and to provide *“Safety standards based on a full review of current scientific literature which Health Canada acknowledges it did not do prior to its latest update of Safety Code 6.”*¹⁵
- The Canadian Teacher's Federation expressed concern for students and their exposure to Wi-Fi. *“That an education program regarding the relative safety of Wi-Fi exposure be implemented and that appropriate resources be developed to educate the public regarding ways to avoid potential exposure risks of Wi-Fi access points and devices.”*¹⁶
- Two international experts^{17, 18} met with Health Canada in September, 2014 and presented recommendations that demonstrated where international standards regarding the evaluation of scientific evidence were not being met
- Individual submissions from experts affiliated with: the World Health Organization; Universities of Columbia, Harvard, Ottawa, Toronto and Yale; the American Academy of Environmental Medicine and other similar institutions; as well as a member of former US Vice-President Al Gore's Climate Change panel (recipients of the Nobel Peace prize), all expressed concerns about Safety Code 6.
- Two of the Royal Society panel report's peer reviewers publicly criticized the process and content.¹⁹

On May 11, 2015, the declaration that began with the 50 international scientists' appeal to Health Canada referenced above, led to the *“International EMF Scientist Appeal”* which was signed by 230 scientists from 41 nations.²⁰ *“The Appeal urgently calls upon the United Nations, the WHO, UNEP and the UN Member States to:*

- *Address the global public health concerns related to exposure to cell phones, power lines, electrical appliances, wireless devices, wireless utility meters and wireless infrastructure in residential homes, schools, communities and businesses.*
- *The scientific findings identified by the signators and others justify this appeal. The World Health Organization (WHO) is encouraged to exert strong leadership in fostering the development of more protective EMF guidelines, to call for precautionary measures, and to educate the public about health risks, particularly risks posed to children and to normal fetal development.”*

¹⁴ <http://www.c4st.org/images/documents/hc-resolutions/medical-doctors-submission-to-health-canada-english.pdf>.

¹⁵ https://www.scribd.com/document/339243057/Final-Scientist-Declaration-Canada-s-SC6-2014#from_embed

¹⁶ <http://www.ctf-fce.ca/en/Pages/Issues/Wi-Fi-Briefing-Documents.aspx>

¹⁷ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3737035/>

¹⁸ <http://www.preventcancer.ca/main/about-us/who-we-are>

¹⁹ <http://c4st.org/federal-wi-fi-safety-report-is-deeply-flawed-say-experts/>

²⁰ <https://emfscientist.org/>

1.2 Standing Committee on Health (HESA) in 41st Parliament studied Safety Code 6

C4ST worked with then Liberal Health critic Dr. Hedy Fry and then Oakville MP Terence Young to show the benefits to the HESA committee on dedicating time to hear from experts. The original report²¹, tabled in June, 2015 did not receive a response due to the election call. C4ST worked in the spring of 2016 with HESA Chair Bill Casey and Oakville MP John Oliver and the report was re-introduced to Parliament.²²

- In testimony before the Parliamentary Health Committee, Mr. Andrew Adams of Health Canada admitted there are studies that show harm at levels below Safety Code 6.²³ Mr. Adams continued *“While it is true that some of these studies report biological or adverse health effects of RF fields at levels below the limits in Safety Code 6, I want to emphasize that these studies are in the minority and they do not represent the prevailing line of scientific evidence in this area.”* C4ST, members of the general public and international experts have repeatedly requested the weight of evidence analysis details from Health Canada, to no avail.

On October 6th, 2016 the Honourable Jane Philpott, then the Minister of Health, presented, pursuant to the House of Commons Standing Order 109, the Government's response²⁴ to the Thirteenth Report of the Standing Committee on Health (HESA) report entitled, *“Radiofrequency Electromagnetic Radiation and the Health of Canadians”* tabled in the House of Commons on June 15, 2016. The down-playing of, and minimal response to, the 12 recommendations made by the previous HESA committee was extremely disappointing. We have to believe that Minister Philpott, due to her very full agenda, must not have had the time to examine fully her October 6th response and accepted Health Canada's input as authoritative and at face value. We are convinced that if the Minister had investigated the underlying reasons for the recommendations, including follow up with the HESA witnesses, she would have insisted on stronger implementation of the recommendations.

C4ST summarized our concerns in a letter to HESA Chair, MP Casey.²⁵

Since Minister Philpott's October, 2016 response, other relevant information has been made public that we would like to present to you.

1.3 Other related information

- Currently, China, Italy, Russia, and Switzerland have better wireless radiation safety standards than Canada.
- Health Canada has fallen behind countries such as France²⁶, Taiwan²⁷ and Belgium²⁸ in protecting Canadian children from the unsafe use of wireless devices.
- It is not only humans and laboratory animals that are affected. In June, 2017, Report of the Standing Committee on Environment and Sustainable Development entitled *“Healthy Environment, Healthy Economy, Healthy Canadians: Strengthening the Canadian Environmental Protection Act 1999”*²⁹ was

²¹ http://publications.gc.ca/collections/collection_2015/parl/xc62-1/XC62-1-1-412-13-eng.pdf

²² <http://www.ourcommons.ca/DocumentViewer/en/42-1/HESA/report-2/>

²³ <http://www.parl.gc.ca/HousePublications/Publication.aspx?DocId=7892702&Language=E&Mode=1&Parl=41&Ses=2> at time 1540

²⁴ <https://www.ourcommons.ca/DocumentViewer/en/42-1/HESA/report-2/response-8512-421-78>

²⁵ <http://c4st.org/minister-health-response-hesa-recommendations/>

²⁶ <http://www.complianceandrisk.com/france-publishes-law-on-electromagnetic-waves/>

²⁷ <http://www.dailymail.co.uk/news/article-2929530/Does-toddler-play-iPad-Taiwan-makes-ILLEGAL-parents-let-children-two-use-electronic-gadgets-18s-limit-use-reasonable-lengths.html>

²⁸ https://www.expatica.com/be/news/Mobile-phones-to-be-banned-for-children_371626.html

²⁹ <http://www.publications.gc.ca/site/eng/9.838357/publication.html>

presented to Parliament. Scientific evidence on adverse effects of electromagnetic fields on birds, bees and other biota, presented in briefs to the committee, resulted in the following:

- Recommendation 62 states: *“The Committee recommends that Health Canada and Environment and Climate Change Canada conduct studies on the effects of electromagnetic radiation on biota, review the adequacy of the current guidelines provided in Safety Code 6 and report their findings back to the Committee.”*

Health Canada response to date: No weight of evidence analysis has been made public. No systematic review of the scientific literature according to international best practices has been conducted, or is in the process of being conducted, as far as we know.

2. IMPROPER USE OF CELL PHONES AND OTHER WIRELESS DEVICES

The CBC Marketplace TV program *“The Secret Inside Your Phone”*, aired March 24th, 2017³⁰, reported that *“81% of Canadians have never seen the message in their phone or manual about carrying their cell phone 5-15mm away from their body”*. The same survey found that *“67% of Canadians say they carry their phones in their pocket or directly against their body”*.³¹ To date, the program has received over 400,000 views, among the highest number of views of any segment.

Wendy Mesley, the reporter in this program, had testing done on three popular cell phone models. When tested as though held against the body, the exposures exceeded (breached) the Safety Code 6 level by 3 to 4 times.

Health Canada's response to date: Health Canada has not increased its precautionary messaging even though Safety Code 6 itself states that *“These [Safety Code 6] levels shall not be exceeded.”*³²

3. WI-FI AND THE INTENSIVE USE OF WIRELESS DEVICES IN SCHOOLS AND HEALTH IMPLICATIONS

In October 2013, during the public consultations of the Royal Society of Canada's expert panel reviewing Safety Code 6, the Canadian Teacher's Federation expressed concern for students and their exposure to Wi-Fi and stated:

*“That an education program regarding the relative safety of Wi-Fi exposure be implemented and that appropriate resources be developed to educate the public regarding ways to avoid potential exposure risks of Wi-Fi access points and devices.”*³³

In August, 2017, at their annual meeting, the members of the Elementary Teachers Federation of Ontario (representing 78,000 teachers), passed a motion to add the following to its policy statements about technology. *“That clear, comprehensive, written internet, email user policies and procedures be provided by district school boards which include Health Canada's recommendations for safer use of wireless devices and manufacturers' warnings and be distributed to employees, students and parent(s)/guardian(s).”*³⁴

Health Canada's response to date: None, as far as C4ST can determine.

³⁰ https://www.youtube.com/watch?v=Wm69ik_Qdb8&t=1s&list=PLeyJPHbRnGaZmkCwy3-8ykUZm_8B9kKM&index=1
time 1:13

³¹ Ibid time 14:24

³² <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/consultations/limits-human-exposure-radiofrequency-electromagnetic-energy-frequency-range-3-300.html>

³³ <http://www.ctf-fce.ca/en/Pages/Issues/Wi-Fi-Briefing-Document.aspx>

³⁴ <http://annualmeeting.ca/wp-content/uploads/2017/08/Motions-Passed-Session-4.pdf>

4. ELECTROSENSITIVITY

C4ST is often contacted by Canadians who report being electrically sensitive i.e. they experience symptoms such as headaches, heart irregularities and burning or tingling sensations when exposed to wireless radiation. Some of these individuals presented at the Royal Society of Canada expert panel hearing as well as to Health Canada and their testimony can be found on line as well as, we assume, in the files in your department.

In Sweden electrohypersensitivity (EHS) is officially a fully recognized, functional impairment, i.e. it is not regarded as a disease³⁵. During the HESA 2015 hearings³⁶, Dr Riina Bray, Medical Director of the Environmental Health Clinic of Women's College Hospital, Ontario (as an individual) described that the symptoms can be disabling and that this condition *"affects about 3% of the population severely"*. Dr. Anne-Marie Nicol, Assistant Professor, Faculty of Health Sciences, Simon Fraser University (as an individual) stated in her testimony to the same committee that: *"As an epidemiologist I believe it is important that we understand what people are being exposed to, or their symptoms, so that we can at least get a sense of what is going on in this country. Currently data is not being collected. In fact, we allow these people to be shunted from one specialist to another ... I think as a society we need to be doing a better job of addressing these people who appear to be very seriously affected by this."*

On August 18, 2017, Dr. Beatrice Golomb M.D. and Professor of Medicine at University of California, San Diego School of Medicine wrote an open letter³⁷ regarding her concerns on the possible adverse health effects of 5G roll-out. That letter describes that hundreds of people who had developed serious health problems from new wireless technologies, have contacted her research group.

Extract from Dr. Golomb's letter: *"Fully half who were employed when their problems developed lost their job because of the problem, among participants of a survey we conducted. They reported that their condition had cost them up to 2 million dollars to date. Many had lost their homes. A number became homeless, and have swelled the ranks of so-called "EMF refugees". Many were previously high functioning individuals – engineers, doctors, and lawyers. The best and the brightest are among those whose lives – and ability to contribute to society – will be destroyed. ... This is not a psychologically driven condition. Multiple objective physiological changes reflecting mechanisms of injury have been shown in persons with this condition."*

We have a similar situation here in Canada for which I can provide details if you wish.

Health Canada's response to date: Minimal or non-existent. Health Canada has not stepped up to take responsibility, nor any substantive action, on what could be having debilitating effects on between 3% and 10% of Canadians, and long term effects on all Canadians.

³⁵ <http://iopscience.iop.org/article/10.1088/1755-1315/10/1/012005/meta>

³⁶ <http://www.ourcommons.ca/DocumentViewer/en/41-2/HESA/meeting-58/evidence>

³⁷ <https://drive.google.com/file/d/0B14R6QNkmaXuZURHNFVEVnNBMjQ/view>